



# ***Residue Control And Educational Program***

***Michigan Department of Agriculture  
&  
Michigan Dairy Industry***

**January 2002**

## **Introduction**

The Michigan Department of Agriculture and the Michigan Dairy Industry would like to thank you in taking a step towards better farm and drug residue management on your farm. The good management practices and drug residue prevention guidelines in this manual are designed to assist you in producing a quality and safe dairy product. Please take the time to go through the manual with your veterinarian, field representative, or state inspector and discuss the items as they pertain to your operation. Check off the topic boxes as you go through the manual. Recommendations can be written in the columns or at the end of each section. Please complete the certificates at the end of the manual.

Additional educational materials are available for posting in the milkhouse and employee training.

Copies of this manual can be obtained through your local veterinarian, field representative, or state inspector. The manual is also available on our website at: [www.michigan.gov/mda](http://www.michigan.gov/mda).

We would like to thank the following participants for their support in this program:

Dairy Farmers of America  
Dean Foods  
Michigan Milk Producers Association  
Michigan Milk Processors  
Michigan State University  
Michigan Bovine Practitioners  
Michigan Department of Agriculture

## Healthy Herd Management & Mastitis Prevention

### Nutrition:

- ☐ Cattle have access to a fresh balanced ration and roughage daily. My farm nutritionist is \_\_\_\_\_.
- ☐ Clean fresh water is available to all cattle at all times.
- ☐ Medicated feeds are used properly according to veterinarian recommendations and label restrictions.
- ☐ On-farm steps are taken to prevent violative drugs residues from occurring due to medicated feed or other feeds purchased.

### Reproduction:

- ☐ A separate, clean and sanitized calving area is provided.
- ☐ All uterine and vaginal infections are treated according to veterinarian recommendations and milk discarded to prevent violative drug residues.
- ☐ Cows culled for reproductive problems are tested and cleared of drug residues prior to sale.

### Vaccines & Parasite Control:

- ☐ All cattle are vaccinated according to veterinarian protocol. On-farm protocol in place.
- ☐ Parasite control used as needed on the advice of the veterinarian.
- ☐ Approved dairy insecticides and sprays used according to EPA label.
- ☐ Vaccines, antibiotics, and insecticides stored properly to prevent contamination of milk or milk contact surfaces.
- ☐ Equipment used to administer treatment (needles, syringes, baling guns, etc,) is properly stored to prevent contamination of milk or milk contact surfaces.
- ☐ Needles and empty containers are properly discarded.

### Cattle Housing:

- ☐ Adequate cattle housing is provided for all groups (calves, heifers, dry cows, and milk cows).
- ☐ Proper ventilation is provided to prevent respiratory diseases.
- ☐ Stalls and pens are maintained with fresh, clean bedding.
- ☐ Alleys are scraped daily or more frequently as needed.
- ☐ Manure is stored so it is not accessible to cattle.

### Biosecurity:

- ☐ All new animals are isolated from other animals as advised by your veterinarian.
- ☐ Animals are vaccinated according to vaccination protocol set by your veterinarian.
- ☐ New cows are segregated until cultured for contagious mastitis pathogens.
- ☐ Rodent and wildlife control is in place to keep rodents and wildlife out of cattle housing and feeding areas.

- ☐ Clean boots and coveralls are worn by employees. Boot-wash, brushes, and disinfectant are located at entry point to farm and cattle areas.
- ☐ Feed & feed additives do not contain ruminant by-products to prevent BSE.
- ☐ Dead cattle are disposed of properly through rendering or proper burial according to Act 239.

**Mastitis Management Program:**

- ☐ Cows are kept clean and dry.
- ☐ Udders are singed or clipped to remove hair.
- ☐ Milking equipment is checked annually. Vacuum controller is checked and cleaned monthly.
- ☐ An approved milking procedure is used that results in milking clean, sanitized, and dry teats and teat ends. Use one or more paper or cloth towels per cow. Never use a paper or cloth towel on more than one cow.
- ☐ Each teat is pre-stripped to check for abnormal milk prior to putting the milking unit on the cow. Abnormal milk is withheld from the bulk tank.
- ☐ Steps are taken to prevent over-milking, liner slips, and squawks.
- ☐ All cows and all teats are post dipped with a dip cup. Only an approved and effective post dip product is used.

**My farm goal is to keep my bulk tank somatic cell count (SCC) at less than \_\_\_\_\_ cells/ml.**

**When I exceed the farm goal:**

- ☐ I work with my veterinarian, milk plant field representative, and milking equipment specialist to determine the cause.
- ☐ Cows are tested with a California Mastitis Test (CMT), DHIA, or SCC test and cultured to identify mastitis causing organisms.
- ☐ Decisions to treat clinical or sub-clinical mastitis are based on culture results and according to a treatment protocol set by my veterinarian.
- ☐ Infected cows milked with a separate unit that is sanitized before reuse or segregated and milked last before treated cows.
- ☐ Treated cows are identified, separated, and milked last or with a separate abnormal milking unit (bucket, lid, claw, and vacuum from vacuum line).
- ☐ All cows are dry treated at "dry-off", identified, and separated from the milking herd.

**Recommendations for improving dairy herd health and mastitis management:**

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## Dairy Farm Drug Residue Prevention

### Establish a Valid Veterinarian/Client/Patient Relationship (VCPR)

- ☐ A veterinarian has assumed responsibility for making medical decisions and administering treatment to my animals.
- ☐ A veterinarian knows the care and practices I use on my farm and is capable of making preliminary diagnoses.
- ☐ A veterinarian is readily available and can provide emergency care for my animals.
- ☐ A veterinarian and I have established drug treatment protocols using approved OTC, Rx, or properly “extra-labeled” drugs.

### Use Only FDA Approved Over-The-Counter (OTC), Prescription (Rx), or Extra-Labeled Drugs

- ☐ All drugs are approved OTC, Rx, or extra-labeled use.
- ☐ Rx drugs and extra-labeled drugs have proper labeling with veterinarian’s name and address, animal ID, condition treated, active ingredient, dosage, route of administration, number of treatments, cautionary statements, and withhold times for milk and meat.
- ☐ Lactating and non-lactating drugs are stored separately.
- ☐ Drugs and drug administering equipment is stored to prevent contamination of milk and milk contact surfaces.

**Caution: Instructions from the veterinarian to check milk or meat prior to sale does not eliminate the need for withholding times on the label.**

The following drugs are **prohibited** for use in **lactating dairy cattle**:

- ◆ Sulfonamide drugs (except approved use of Sulfadimethoxine, Sulfabromomethazine, and Sulfaethoxypyridazine).
- ◆ Sulfadimethoxine Sustained Release (SR).
- ◆ Tetracycline drugs (Chlortetracycline, Oxytetracycline, Tetracycline) used as feed additives.

The following drugs are **prohibited** from use in any species of **food-producing animal**:

- ◆ Chloramphenicol
- ◆ Clenbuterol
- ◆ Diethylstilbestrol (DES)
- ◆ Dimetridazole
- ◆ Iprnidazole (e.g. Ipropan)
- ◆ Tetracycline in all feeds for lactating dairy cows.
- ◆ Other nitroimidazoles (e.g. Flagyl)
- ◆ Furazolidone (e.g. Furox)
- ◆ Nitrofurazone (e.g. NFZ)
- ◆ Fluoroquinolones (except for approved use) (e.g. Faraflox, Baytril, Orbox)
- ◆ Glycopeptides

- ◆ Collodial Silver
- ◆ Dipyrone
- ◆ DMSO (Dimethylsulfoxide)

### **Administer All Drugs Properly and Identify All Treated Animals**

- ☐ Identify individual(s) on farm who will treat animals. **They are** \_\_\_\_\_.
- ☐ Use drug treatment protocols established by your veterinarian.
- ☐ Follow labeled instructions as provided on container or provided by your veterinarian.
- ☐ Treat animals based on age, weight, and body condition.
- ☐ Avoid giving intramuscular injections and avoid areas used in prime cuts.
- ☐ Identify treated animals with more than one form of identification. **List methods of ID here** \_\_\_\_\_.
- ☐ Record treatment information immediately in treatment log.
- ☐ Separate treated animal from lactating animals if possible.
- ☐ Follow withholding times prescribed by manufacturer or veterinarian.
- ☐ Milk treated animals last or with separated equipment (bucket, lid, claw, and vacuum from vacuum line).
- ☐ Separate cows “dry treated” immediately after treatment.
- ☐ Test animal’s milk and meat with an approved test prior to offering milk or meat for sale.
- ☐ Do not feed antibiotic waste milk to calves intended for sale.

### **Records & Record Keeping**

- ☐ I keep written or computer records on all animals.
- ☐ I keep written or computer records of all animals **treated**.
- ☐ I use records to determine on farm problems and review them with my veterinarian to make the needed corrections.
- ☐ I show family and employees how to read, keep, and update records.
- ☐ Treatment records contain data to include: treatment date, animal ID, drug used, dosage, route of administration, withhold times for meat & milk, and who treated the animal.
- ☐ I keep records for the past two years for review.

### **Records must be kept for 12 months**

### **On-Farm Drug Screening**

- ☐ Use an approved drug test for the drugs used to treat cows.
- ☐ Provide a suitable place to perform testing according to test directions.
- ☐ Use positive and negative controls to assure the test is working properly.
- ☐ Be sure all people using the test are trained to perform the test. Keep records of people trained.
- ☐ Never shorten the milk or meat withhold times.
- ☐ Test all dry cows prior to putting milk in the tank.
- ☐ Test newly purchased animals before milking them in the bulk tank.
- ☐ Test individual cows who received multiple treatments or two or more drugs.
- ☐ Sample cows and bulk tank according to standardized sampling procedures.

**Employee/Family Awareness to Prevent Drug Residues**

- ☐ Employees approved to treat animals are also able to make decisions on selling animals.
- ☐ My family and/or employees understand the cost of selling milk with violative drug residues.
- ☐ I have a written protocol for milking treated animals posted in the milkhous.
- ☐ All treated cows are milked last or in separate equipment.
- ☐ Phone numbers of farm management, veterinarian, and field representative are posted for family or employees to call for assistance.
- ☐ My milk company will pay for quality or antibiotic dumps and family/employees are encouraged to contact field representative if they suspect contamination of the milk.  
My field representative is \_\_\_\_\_.
- ☐ I have incentive pay plans for quality milk produced and penalties if poor or violative milk is shipped.
- ☐ I provide family/employees proper training to prevent milk quality or drug residues from occurring.
- ☐ All my employees can read, write, and understand English. If not, steps have been taken to properly train them in their language.

**Recommendations to improve drug residue prevention protocol:**

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The Michigan Department of Agriculture and the Michigan Dairy Industry would like to thank you for completing this program. Please take time to complete the program certificate with your veterinarian, field representative, and inspector. Please keep a copy for your records. For additional information please contact:

Michigan Department of Agriculture, Food & Dairy Division-Dairy Section  
P.O. Box 30017, Lansing, MI 48909. (517) 373-1060  
<http://www.mda.state.mi.us/>

Additional educational materials are available. Please contact your veterinarian, field representative, extension agent, or state inspector for additional materials.

# ***Michigan Residue Control & Educational Program***

## **Certificate of Completion**

Permit Number \_\_\_\_\_ New Producer Y / N Drug Residue Y / N  
Farm or Producer Name \_\_\_\_\_

### **Dairy Producer:**

I have reviewed the Healthy Herd Management, Mastitis Prevention, and Drug Residue Prevention Protocol with \_\_\_\_\_, D.V.M. / Field Representative/ Inspector. I agree to implement proper management practices to avoid violative drug residues from the milk or beef produced on my farm. I understand that I am responsible for drug residues that occur in my milk or beef. I will take steps to assure all family members or employees have been trained to prevent drug residues. I will not sell any milk or meat suspected of containing drug residues unless properly tested and is found to be clear of drug residues

\_\_\_\_\_  
Producer's Signature

\_\_\_\_\_  
Date

### **Veterinarian/ Field Representative/ Inspector:**

I have reviewed the Healthy Herd Management, Mastitis Prevention, and Drug Residue Prevention Protocol with \_\_\_\_\_. The dairy producer acknowledges that he/she understand the management and drug residue prevention practices discussed. The producer has agreed to make the needed changes to meet these practices.

\_\_\_\_\_  
Veterinarian's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Inspector's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Field Person's Signature

\_\_\_\_\_  
Date



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Producer's Signature

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Date

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\_\_\_\_\_  
Veterinarian's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Inspector's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Field Person's Signature

\_\_\_\_\_  
Date